

We Claim:

*Int. a* 1. A bit holder comprising: a cylindrical body having a distal end surface and an axis, said body having formed in said end surface an axial bore terminating at an inner end surface, a permanent magnet received in said bore and having an outer surface, and retaining structure in contact with the outer surface of said magnet and interference fitted in said bore to retain said magnet in said bore, said bore having a portion of non-circular transverse cross section outboard of said retaining structure defining a bit-receiving socket.

2. The bit holder of claim 1, wherein said magnet is formed of neodymium.

3. The bit holder of claim 1, wherein said magnet has a transverse cross-sectional size smaller than the cross-sectional size of said bore so as to be freely receivable in said bore.

4. The bit holder of claim 3, wherein said retaining structure includes a retaining member mounted in said bore outboard of said magnet for cooperation with said inner end surface to retain said magnet therebetween.

*Sub 92*  
5. The bit holder of claim 4, wherein said retaining member is substantially flat.

6. The bit holder of claim 4, wherein said retaining member is generally bowl-shaped, being convex toward said magnet.

*7.4*  
7. The bit holder of claim 1, wherein said retaining structure is formed of metal.

*8.5*  
8. The bit holder of claim 1, wherein said retaining structure is formed of plastic.

*Sub 92*  
9. The bit holder of claim 1, and further comprising a cushioning member disposed between said magnet and said inner end surface.

*7*  
10. The bit holder of claim 1, wherein said portion of said bore defining said socket comprises a counterbore having a cross-sectional size larger than that of the remainder of said bore.

*8* *7*  
11. The bit holder of claim 10, wherein said retaining structure is disposed in said counterbore.

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12. The bit holder of claim 1, wherein said bore has the same cross section along its entire length.

13. The bit holder of claim 1, wherein said retaining structure includes an encapsulation material substantially surrounding said magnet and providing the interference fit in said bore.

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14. In combination with the bit holder of claim 1, a bit having a transverse cross section such as to be mateably receivable in said socket in driven engagement with said body.

Sub a 15. A hand tool comprising: an elongated shank having a handle end and a working end and a longitudinal axis, a cylindrical body at said working end having a distal end surface, said body having formed in said end surface an axial bore terminating at an inner end surface, a permanent magnet received in said bore and having an outer surface, and retaining structure in contact with the outer surface of said magnet and interference fitted in said bore to retain said magnet in said bore, said bore having a portion outboard of said retaining structure of non-circular transverse cross section defining a bit-receiving socket.

12 11  
16. The hand tool of claim 15, wherein said magnet is

formed of neodymium.

17. The hand tool of claim 15, wherein said magnet is freely received in said bore, said retaining structure including a retaining member mounted in said bore outboard of said magnet for cooperation with said inner end surface to retain said magnet therebetween.

18. The hand tool of claim 15, wherein said retaining structure includes an encapsulation material substantially surrounding said magnet and providing the interference fit in said bore.

19. The hand tool of claim 15, wherein said portion of said bore defining said socket comprises a counterbore having a cross-sectional size larger than that of the remainder of said bore.

20. The hand tool of claim 15, wherein said bore has the same cross section along its entire length.

add 5

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